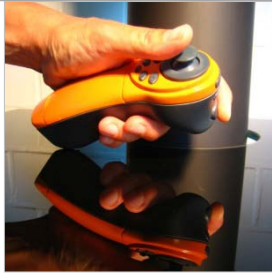
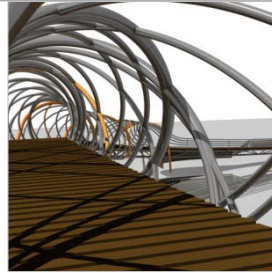


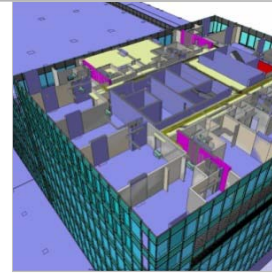
Solar Driven Ceiling Panel



Game Controller for GIE



Rector Street Bridge, NYC



Four Seasons Hotel Dubai

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 PORTFOLIO: JSCHUMACHER.COM

Work Experience:

06/08 - 01/09: Project Consultant, Gehry Technologies - Dubai (UAE) and New York City

- Created coordination & construction models for Four Seasons & W Hotels using Digital Project (DP).
- Generated clash reports & simulated construction sequences.
- Conceptualized and implemented software tool to generate solid DP geometry from 2D.
- Developed generative method to design and control facades software-independently using Excel.

01/08 – 05/08: Research Assistant, S.O.M., Digital Design Group - New York City

- Responsible for parametric modelling, automation, optimization and analysis assignments.
- Wrote genetic algorithm to design shading system optimized for solar incidence, daylight and view.

05/07 – 08/07: Engineering Intern, Buro Happold, Technical Design Group - Los Angeles

- Managed computational design tasks using ANSYS, Generative Components, CATIA, Rhino.

08/06 – 12/07: Teaching Assistant, Stevens Institute of Technology - Hoboken (NJ)

- Selected by Mechanical Engineering faculty to teach product design (SolidWorks) to undergraduates.

07/05 – 07/06: Industrial Engineering Intern, Pemberton-Dear Limited - Harlow (UK)

- Assisted senior team in product design, prototyping, testing and mechanical engineering.

Education:

08/06 – 05/08: Stevens Institute of Technology - Hoboken (NJ)

- MEng Product Architecture & Engineering: performance driven architecture (GPA: 3.9)

09/03 – 06/06: Middlesex University - London (UK)

- BS with honors in Product Design & Engineering: concentration in consumer robotics (GPA: 4.0)

Recent Projects:

- Rationalization
- Environmental
- CFD/ Tensegrity
- BIM Pilot Program

- Developed Panelization Tool for Hoberman Associates to investigate and demonstrate versatility of kinematic shading system on doubly-curved surfaces. Built shape optimizer for maximum usage of panels as well as simulation of panel behavior.
- Designed the current performance-driven ceiling panels at Columbia University cafeteria in conjunction with Marble Fairbanks Architects.
- CFD-tested prototype of Cooling Greenhouse for Materials and Applications Exhibition in LA. Used natural ventilation, thermal expansion of smart materials and recycled humidity to ensure the greenhouse interior remains below 72F year round.
- Generated a pilot program for furniture designers Milder Office to convert their current design approach into a customer oriented and automated parametric modelling system.

Awards:

- **Middlesex University School Prize 2006:** Received “Award for Outstanding Achievement in Product Design and Engineering” as Best Graduate of 2006.
- Developed a one-handed game controller with 3D joystick for GIEvolution. Received funding worth £8000 and an award from the **Institution of Design Engineers**, August 2006.
- **Winner of UK championship** and UK representative in the 2005 “Eurobot” Competition in Switzerland, a competition in autonomous robot bowling.

Skills/ Interests:

Parametric Modelling combined with Scripting, Analysis, Simulation and Optimization:

Proficient in SolidWorks, CATIA/ DP, Rhinoceros, Generative Components, Processing/ Java, Visual Basic, FloWorks (CFD), CosmosWorks (FEA), Ecotect (solar), IES (thermal), Ansys Workbench (structural), Adobe Creative Suite, European Computer Driving License in MS Office Applications.

- Bilingual in German (native language) and English; basic French.
- Interested in robotics, interaction design, product design, informed architecture.
- Enjoy teaching at university level, travel, bicycling, yoga, photography.